

Handy Guide *for* Mechanics

BLACKHAWK WRENCHES

For Every Mechanical Need

SOCKET *and*
OPEN END



BLACKHAWK MANUFACTURING CO.
"Wrench Headquarters of America"
MILWAUKEE ▼ ▼ ▼ WISCONSIN

PRTD. IN U.S.A.

CATALOG MG. 100

A Message to the Mechanic

THIS little handy guide for the mechanic is published by a firm that has been specializing in fine tools for a generation. There is little tribute therein paid to fancy names or confusing terms.

Plain language predominates — Easy tables are for your reference — complete descriptions supplant superfluous phrases.

These products are sold and backed by established dealers located in your own community. They are your friends. Buy from them then, with complete confidence at all times.

These dealers usually will grant you credit — eliminating the disadvantage of payment in advance to tool peddlers for inferior articles at prices which might be higher than you should pay.

Blackhawk fine tools are made for many years of service and with reasonable care will prove an excellent investment.

Use Blackhawk socket wrenches and Blackhawk-Armstrong Open End wrenches and you will constantly improve your producing ability.

Mechanics Guide—Blackhawk Wrenches

The Meaning of the Hex:

Like Sterling on silverware and Steinway on pianos, the words Blackhawk on wrenches, means the last word in materials and workmanship. The symbol Hex (trade mark of Blackhawk) is a protection to mechanics everywhere and teaches that—

When You See a
"HEX"
Think of
BLACKHAWK

The Meaning of the Colors:

For years Blackhawk Socket Wrenches have been advertised and displayed in striking combinations of yellow, red and black. You will find that the new "Chief" Sets with Chromium finish are being glorified in royal purple and black—and our latest product, Blackhawk-Armstrong Open End Wrenches appear in print in pleasing effects of deep blue, green and black. You can locate by color distinction the type of wrench you desire.

A Guarantee without any Strings:

Blackhawk wrenches are made for the mechanics of the world to use for setting and loosening nuts, cap screws, and any turnable device with a hex or square head. If any owner feels that our product has in any way failed to give this service, or has worn out before its time, replacement will cheerfully be made by Blackhawk thru any of our authorized dealers or distributors.

Where to Buy and How to Buy:

Blackhawk products are displayed in cabinets and on boards by leading dealers and wholesalers in most every buying center. Mechanics can buy from these convenient service stocks with confidence that Blackhawk will stand back of any representation made by any of our thousands of distributors.

Prices Quoted Herein are Net to Mechanics:

In arriving at mechanics' prices, discounts varying from 30 to 40% have been deducted from consumer list—so prices are net and not subject to further discount.

No. 32CD Set

Here's the most popular set of wrenches in America — this Master Mechanics set No. 32-CD. It will enable you to use your skill to fullest advantage — save time, bruised knuckles and cussing.

Packed in heavy gauge steel case with beautiful two-tone crackle finish of maroon and black.

Contents of Set

One each of following: Handles Nos. 911X, 610, 500, T10, T60, T4, 3310, and 110X. Attachments Nos. T1, T2, and T11. Double Hexagon Sockets Nos. D14, D16, D18, D19, D20, D21, D22, D24, D25, D26, D28, D30, D31, D32, and D34. Square Sockets Nos. 012, 014, 016, 018, and 020. Spark Plug Socket No. 136.

No. 32CD Set\$18.20

No. 32C Set (with Hexagon instead of Double Hexagon Sockets).....\$17.45

No. 22CD Set

A dandy set for the mechanic who is not quite ready for the complete set No. 32CD. Comes in the No. C Case so that purchaser can add tools at convenience until set is complete. Contains 22 tools packed in beautiful two-tone crackle finished case.

Contents of Set

One each of following handles: Nos. 911X, 610, 500, T4, 3310, T5, T10, and T60. Attachments: Nos. T2, and T11. Spark Plug Socket: No. 136.

Double Hexagon Sockets: Nos. D14, D16, D18, D19, D20, D21, D22, D24, D25, D26, and D28.

No. 22CD Set\$14.60

No. 22C Set—Same but with Hexagon instead of Double Hexagon Sockets\$14.05

No. 43DD Set

The Set for every job—car, truck, tractor, threshers and farm machinery. This set combines the tools of the famous 32CD Set, with the heavy duty handles and sockets in the 35B Set described on Page 18. Contents pictured at left. Neatly arranged in the sturdy No. D Case with the two-toned red and black crackle finish.

No. 43DD Set\$28.90

No. 43D Set—Combines tools of 32C and 35B\$28.15

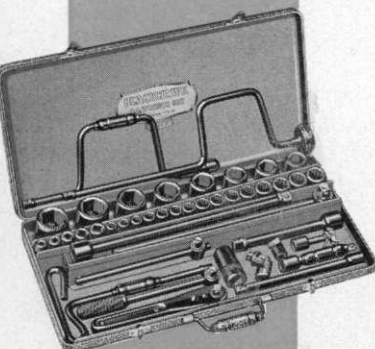
(These Prices Net to Mechanics)



32CD



22CD



43DD

Heavy Duty Set

Just the set needed by mechanic who repairs trucks, tractors, and farm machinery. A favorite in Industrial Plants. Those big frozen nuts give up the fight when you apply one of these husky sockets and powerful handles. Sockets of special steel, properly heat treated to stand up under constant use. Handles have $\frac{3}{4}$ " square shank—sockets $\frac{3}{4}$ " opening for handles.

NO. 36B SET CONTAINS 1 EACH:
 No. 916 Ratchet, 16" long.
 No. T4X Sliding T, 19" long.
 No. T8X Extension Bar, $8\frac{1}{2}$ " long.
 No. T17X Extension Bar, 17" long.
 Nos. 36X, 38X, 40X 44X, 46X, 48X, 50X, 52X. $1\frac{1}{8}$ " to $1\frac{5}{8}$ ".
 No. 36B—Set Complete in two-toned steel case. Price\$15.80
 No. 35B—Set (Same as above less No. 916 Ratchet). Price\$10.70
 No. 35—Set (Same as 35B except packed in wooden box). Price.....\$8.30

Drain Plug Sets

No's. 23G and 15G

Here's a complete set of tools for Drain Pit Service. All the sockets, handles, and attachments necessary for removing plugs to drain crank case, drain and refill plugs in transmission and differential housing.

NO. 23G SET CONTAINS 1 EACH:
 No. T4 sliding T, No. T6 extension bar.
 No. T1 attachment for drain plugs with slot.

Hexagon Sockets, Nos. 16, 24, 30, 32, 34, and 36.

Square Sockets, Nos. 014, 016, 018, 020, 022, 024, and 028.

Square Plugs, Nos. 710, 712, 714, 716, 718, 720, and 724.

The No. 15G Set is packed in same box as No. 23G but contains only 15 tools. Provides a low priced set that will handle drain service on the majority of popular cars.

NO. 15G SET CONTAINS 1 EACH:
 No. T4 Sliding T, No. T6 extension bar.
 Hexagon Sockets, Nos. 16, 24, 30 and 36.

Square Sockets, Nos. 014, 016, 018, 020, and 024.

Square Plugs, Nos. 712, 714, 716, and 718.

No. 23G Set\$9.75
 No. 15G Set\$7.00

No. 13H Set

This little set of wee handles and tiny double hexagon sockets ideal for use on work in close quarters such as: Automotive universal joints, oil pump screws, terminals, water pumps and fan assembly located in front of motor, carburetor joints, cap screws, generator bolts, pole pieces and brushes, universal generator and water pump couplings, distributors and numerous other electrical and automotive devices. Ideal for aviation work.

Set contains 13 tools, one each of items, pictured at right.
No. 13H Set—Complete in Metal Case H\$6.80

No. 9L Set

For those who have use for only a smaller assortment we recommend the No. 9L Set. This set consists of one each of tiny sockets shown at right: one No. T4S sliding bar handle, and two No. T6S, 6" extensions bars. Handle combined with bars provides either T or L type with 6", or 12" length if both extensions are used.

No. 9L Set—Complete in L Case (black finish)\$3.15
 (These Prices Net to Mechanics)



36B Set



23G Set



13H Set



9L Set

Blackhawk Q. D. Sockets



No. 412

No. 414

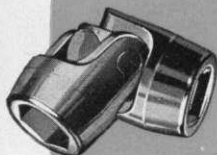


No. 416

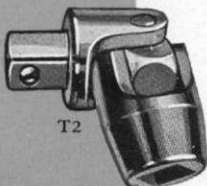


No. 130

No. 440X

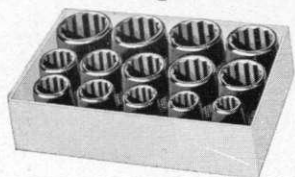


T16 Series



T2


 No. 012
Series

 Extra
Heavy
Duty
Square


DOUBLE HEX. SOCKET SET

No. 14Z 14 Double Hex. Sockets,
Nos. D14 to D32 — $\frac{1}{8}$ "
to 1". Set in fibre box.....\$4.85

No. 412—For Chevrolet and Marmon
brake band adjusting screw....\$.40
No. 414—Special Alemite Socket.... .40
No. 416—Wing Nut Socket..... .65

SPARK PLUG SOCKETS

No. 128—For $\frac{7}{8}$ " hex. spark plugs..\$.50
No. 130—For $\frac{1}{2}$ " spark plugs..... .50
No. 132—For Metric spark plugs
(Hudson-Essex)55
No. 136—For $1\frac{1}{2}$ " hex. spark plugs, .55

No. 440X A heavy duty socket
for latest Model A
Fords. $1\frac{1}{4}$ " Hex. opening and $2\frac{3}{4}$ "
deep to take the projection of the
shaft as well as the nut.

Price, each\$.75

UNIVERSAL JOINT SOCKETS

90° angle.

Hex. Socket			Hex. Socket		
No.	Size	Price	No.	Size	Price
T16	$\frac{1}{2}$ "	\$1.15	T24	$\frac{3}{4}$ "	\$1.35
T18	$\frac{5}{8}$ "	1.15	T26	$1\frac{1}{8}$ "	1.35
T20	$\frac{5}{8}$ "	1.15	T28	$\frac{7}{8}$ "	1.50
T22	$1\frac{1}{16}$ "	1.35			

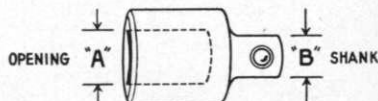
UNIVERSAL JOINT

No. T2 90° angle.
Price, each\$1.25

SQUARE PLUGS

No.	710	712	714	716	718	720	724
Size	$\frac{1}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	$1\frac{1}{4}$ "
Price, each	.....\$ .30						

ADAPTERS



For increasing or decreasing square
shank sizes to square socket openings.

Adap- ter No.	Open- ing "A"	Square Shank "B"	Used on Handles	Price
T7X	$\frac{5}{8}$ "	$\frac{3}{4}$ "	Increase	\$.60
T9X	$\frac{1}{2}$ "	$\frac{3}{4}$ "	Increase	.50
T9XX	$\frac{3}{4}$ "	$\frac{7}{8}$ "	Increase	1.00
T7	$\frac{3}{4}$ "	$\frac{5}{8}$ "	Decrease	.60
T9	$\frac{3}{4}$ "	$\frac{1}{2}$ "	Decrease	.50
T90	$\frac{7}{8}$ "	$\frac{3}{4}$ "	Decrease	1.00

Table of Standard Q. D. Square Sockets
 $\frac{1}{2}$ " Sq. Handle Openings

Socket No.	Socket Size	U.S.S. Nuts and Bolts	U.S.S. Cap Screws	Square Head Set Screws	Coach Screws	Net Price
012	$\frac{3}{8}$ "		$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{4}$ "	.25
014	$\frac{7}{16}$ "		$\frac{5}{16}$ "	$\frac{7}{16}$ "		.25
016	$\frac{1}{2}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "		.30
018	$\frac{9}{16}$ "		$\frac{7}{16}$ "	$\frac{9}{16}$ "	$\frac{3}{8}$ "	.30
019	$1\frac{1}{16}$ "	$\frac{5}{16}$ "				.35
020	$\frac{5}{8}$ "		$\frac{1}{2}$ "	$\frac{5}{8}$ "		.35
022	$1\frac{1}{16}$ "	$\frac{3}{8}$ "	$\frac{9}{16}$ "			.35
024	$\frac{3}{4}$ "		$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	.40
025	$1\frac{1}{8}$ "	$\frac{7}{16}$ "				.40
026	$1\frac{1}{16}$ "					.40
028	$\frac{7}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "		.50
030	$1\frac{1}{16}$ "				$\frac{5}{8}$ "	.50
032	1"	$\frac{9}{16}$ "		1"		.50
034	$1\frac{1}{16}$ "	$\frac{5}{8}$ "				.60
040	$1\frac{1}{4}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "		.65

(These Prices Net to Mechanics)

Blackhawk Quick Detachable Sockets

Built to stand the gaff. Proper taper, depth, and thickness of wall in each socket to take the fight out of the toughest nut.

Table of Standard Q. D. Hexagon and Double Hexagon Sockets 1/2" Sq. Handle Openings

Double Hex. No.	Hexagon Socket No.	Socket Size	U.S.S. Nuts and Bolts	Hex. Head Cap Screws U.S. Std.	S.A.E. Std. Nuts and Cap Screws	Mfg. Std. Bolt Hds.	Coach Screws	Net Price Hexagon	Net Price Double Hex.
D14	14	7/16		1/4	1/4	1/4		.25	.30
D16	16	1/2	1/4	9/16	9/16			.25	.30
D18	18	9/16		3/8	3/8		3/8	.25	.30
D19	19	19/32	5/16					.25	.30
D20	20	5/8		7/16	7/16	3/8		.25	.30
D21	21	21/32						.35	.35
D22	22	11/16	3/8					.35	.35
D24	24	3/4		1/2	1/2		1/2	.35	.35
D25	25	25/32	7/16					.35	.45
D26	26	13/16		9/16		1/2		.35	.45
D28	28	7/8	1/2	3/8	9/16			.35	.45
D30	30	15/16			5/8		5/8	.45	.50
D31	31	31/32	9/16					.45	.50
D32	32	1		3/4	11/16	5/8		.45	.50
D34	34	1 1/16	5/8		3/4			.50	.55
D36	36	1 3/8		7/8			3/4	.50	.65
D40	40	1 3/4	3/4	1	7/8			.50	.65

Table of Standard Q. D. Deep Hexagon Sockets 1/2" Sq. Handle Openings

Socket No.	Socket Size	U.S.S. Nuts and Bolts	Hex. Head Cap Screws U.S. Std.	S.A.E. Std. Nuts and Cap Screws	Mfg. Std. Bolt Hds.	Coach Screws	Net Price
216	1/2	1/4	5/16	9/16			.35
218	9/16		3/8	3/8		3/8	.35
220	5/8		7/16	7/16	3/8		.35
222	11/16	3/8					.35
224	3/4		1/2	1/2		1/2	.50
228	7/8	1/2	5/8	9/16			.50
230	15/16			5/8		5/8	.55
232	1		3/4	11/16	5/8		.55

Table of Heavy Duty Q. D. Hexagon Sockets 3/4" Sq. Handle Openings

28x	7/8	1/2	5/8	9/16			.50
30x	15/16			5/8		5/8	.50
31x	31/32	9/16					.50
32x	1		3/4	11/16	5/8		.50
34x	1 1/16	5/8		3/4			.55
36x	1 1/8		7/8			3/4	.60
38x	1 1/16				3/4		.60
40x	1 1/4	3/4	1	7/8			.60
42x	1 5/16					7/8	.65
44x	1 3/8		1 1/8		7/8		.65
46x	1 1/2	7/8		1			.85
48x	1 5/8		1 1/4			1	.85
50x	1 7/8				1		.85
52x	2	1		1 3/8			.85

Table of Tiny Q. D. Double Hexagon Sockets 5/8" Sq. Handle Openings

810	1 1/16	No. 6					.30
812	3/8	No. 10					.30
814	7/16		1/4	1/4	1/4		.30
816	1/2	1/4	5/16	5/16			.30
818	9/16		3/8	3/8		3/8	.30
820	5/8		7/16	7/16	3/8		.30

(These Prices Net to Mechanics)



810 Series



214 Series

D14 Series



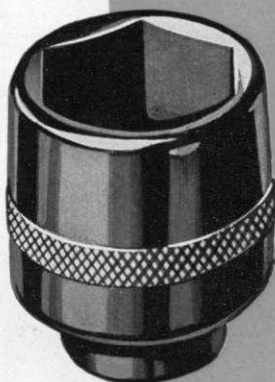
14 Series



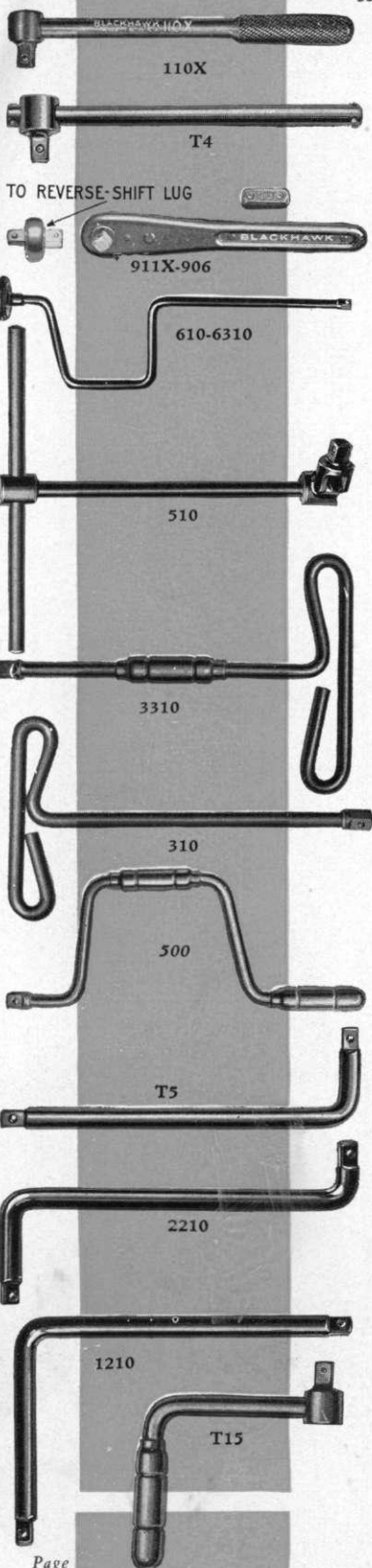
Bell Bottom No. 28 and Larger



Heavy Duty Hex



Extra Heavy Duty Hex



Quick Detachable Handles

Offset Handle

No. 110X $\frac{5}{8}$ " dia. 10 $\frac{3}{8}$ " long.
Price, each\$.65

Sliding Tee

No. T4 $\frac{9}{16}$ " dia. 10 $\frac{3}{4}$ " long. When used with extension bar makes either L or T Wrench.
Price, each\$.60

Long Speeder

No. 6310 $\frac{1}{2}$ " dia. 28" overall, shank 20". Will last a life-time. Price, each.....\$1.00

Standard Speeder

No. 610 $\frac{9}{16}$ " dia. 19" overall, shank 11". The speedier speeder.
Price, each\$.90

Universal T and L

No. 510 90 degree Universal. $\frac{9}{16}$ " dia. 20" overall. Sliding bar head provides either T or L.
Price, each\$1.65

Tee Handles

No. 3310 Handle 7 $\frac{3}{4}$ " wide, $\frac{1}{2}$ " dia. shank 12" long.
Price, each\$.80

No. 310 Same as 3310 but without revolving grip.
Price, each\$.65

Brace Handle

No. 500 $\frac{3}{4}$ " dia. 15 $\frac{5}{8}$ " overall.
Price, each\$.90

Double-end Offsets

These three Double-End Offsets built on principle of making both ends useful.

No. T5 $\frac{3}{8}$ " dia. 3"x10" long.
Price, each\$.55

Double-end Z Offset

No. 2210 $\frac{3}{8}$ " dia. 10" long, offset 1 $\frac{1}{4}$ " and 3".
Price, each\$.65

Double-end L Offset

No. 1210 $\frac{3}{8}$ " dia. 7"x10" long.
Price, each\$.60

Ratchet Wrenches

No. 911X The $\frac{1}{2}$ " square ratchet lug can easily be pushed to other side, thus changing direction of ratchet. Complete with one ratchet lug.
Price, each\$2.20

No. T13 Extra ratchet lug.
Price, each\$.25

No. 906 6" ratchet, similar to 911X.
Price, each\$2.00

Crank Speeder

No. T15 Price, each\$.65

(These Prices Net to Mechanics)

Quick Detachable Handles

Extension Bars

Fit all standard $\frac{1}{2}$ " shank handles shown on preceding page. Properly heat treated to stand the gaft. $\frac{5}{8}$ " dia. Shank.

No. T 6	Length 6"	Price \$	.50
No. T 8	Length 8"	Price	.55
No. T10	Length 10"	Price	.55

Same as above but equipped with revolving grip for convenience in speeding off nuts and cap screws.

No. T60—6" long	\$.55
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No. T8X— $\frac{3}{4}$ " sq. shank, $\frac{3}{4}$ " dia.	
8 $\frac{1}{2}$ " long	\$1.00

No. T17X— $\frac{3}{4}$ " sq. shank, $\frac{3}{4}$ " dia.	
17" long	\$1.05

Sliding T Handles

Friction head retains bar at desired position. When used with extension bar provides T or L.

(No. T4 Standard Sliding T shown on page 9.)

No. T4X— $\frac{3}{4}$ " shank, $\frac{1}{8}$ " dia.	
18" long	\$1.15

Stud Setter and Extractor

Used with any standard $\frac{1}{2}$ " handle to set or remove studs from $\frac{1}{4}$ " to $\frac{5}{8}$ " diameter.

No. 651	\$1.15
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Tie Rod Wrench

For standard $\frac{1}{2}$ " handles.

No. T1—For ordinary car work	\$.40
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No. T1X—For heavy duty work	\$.55
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Ratchet Attachment

Used with any Q. D. Handle with $\frac{1}{2}$ " square lug. Provides a ratchet wrench on work that is inaccessible to standard type ratchets.

No. T3	\$1.65
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Valve Grinder Attachment

Fits any standard speeder handle. Points will fit all valves.

No. T11	\$.40
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Set 4 extra points	\$.15
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Ratchet Wrenches

No. 916—Heavy Duty with $\frac{3}{4}$ " square lug	\$5.65
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No. T13X—Lug for No. 916 Ratchet	\$.55
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Tiny Handles

Tiny Handles shown on page 3 have $\frac{3}{8}$ " square shank. Just the tools for Ignition Service work. Packed as 13H Set and 9L Sets.

No. 500S— $\frac{7}{8}$ " dia. 10 $\frac{1}{2}$ " overall, 3 $\frac{3}{8}$ " sweep. Equipped with revolving knurled steel grip \$.85

No. 801—For use with No. 807 or any Tiny handle \$.35

No.	Dia.	Length	Price
T 6S	$\frac{7}{16}$ "	5"	\$.60
T 10S	$\frac{1}{2}$ "	10"	\$.65

No. 807— $\frac{1}{8}$ " dia. 4" long. Handy knurled grip to speed the job \$.50

No. T4S— $\frac{3}{8}$ " dia. 7" long. For use with extension bars \$.15

No. 110S— $\frac{7}{8}$ " dia. 7 $\frac{3}{4}$ " long. Solid one-piece steel grip $\frac{5}{8}$ " dia. \$.65

(These Prices Net to Mechanics)

EXTENSION BARS



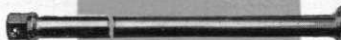
T10



T60



T8X-T8XX



T17X-717XX

SLIDING T HANDLES



T4-T4X



T4XX



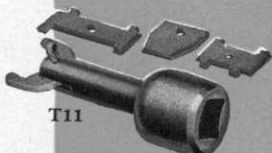
T40XX

SPECIAL WRENCHES

651

T1
T1X

T3

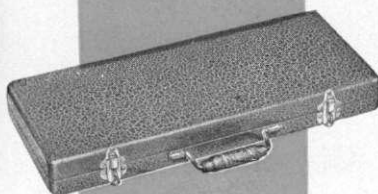


T11



916-920

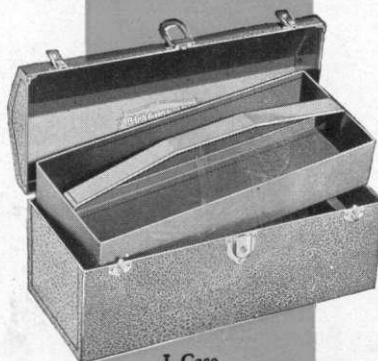
Metal Carrying Cases



C Case



F Case



J Case

Look! good looking, strong carrying cases. Heavy one-piece top and bottom—snap shut like a watch case—swivel metal handles—no rough patched corners—18 gauge steel used. Beautiful lasting finish—two-tone black and maroon lacquer. Inside of case copperized.

No. A — 16" long, 6 $\frac{3}{4}$ " wide, 2 $\frac{1}{2}$ " high—used in No. 18AD and 18A sets—Mechanic's net price\$2.65

No. B—19 $\frac{1}{8}$ " long, 5 $\frac{9}{16}$ " wide, 2 $\frac{1}{2}$ " high for 35B and 36B sets—Mechanic's net price\$2.65

No. C — 19 $\frac{7}{8}$ long, 8 $\frac{3}{8}$ " wide, 2 $\frac{1}{2}$ " high for 22CD, 32CD, 22C, 32C, 30CD and 16CD sets—Mechanic's net price\$3.00

No. D — 23 $\frac{1}{8}$ " long, 11" wide, 2 $\frac{1}{2}$ " high for 43DD and 43D sets—Mechanic's net price\$5.65

No. G — 11 $\frac{1}{8}$ " long, 6 $\frac{1}{8}$ " wide, 2 $\frac{3}{4}$ " high for No. 23G drain pit set—Mechanic's net price\$2.35

No. H — 11" long, 4 $\frac{3}{4}$ " wide, 1 $\frac{1}{4}$ " high for No. 13H Electrical set\$2.00

Mechanic's Case No. F

Handy Mechanic's case. Will hold tools in any Blackhawk set and in addition — hammers, punches, pliers, etc., as well as supply of nuts and cotter pins. Has removable steel tray. Yale lock and steel carrying handle.

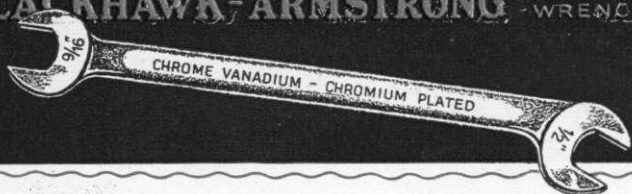
Size 6 $\frac{1}{2}$ " x 6 $\frac{3}{4}$ " x 20 $\frac{1}{2}$ " — Mechanic's net price\$6.00

Gable Case No. J

Designed for master mechanics. Lasting qualities built in with features of roominess, strength and convenience. Lower section has ample space for complete Blackhawk Q. D. handles and sockets. Removable tray for special tools such as pliers — screw driver, hammer, etc.

18 gauge steel—has Yale lock and special carrying handle. Size 21" long, 10" high, 8" wide —Mechanic's net price.....\$8.65

(These Prices Net to Mechanics)



And Now—Open End Wrenches

BLACKHAWK now places on the market a complete line of open end wrenches, made of Chrome Vanadium steel, Chromium plated, to be known as Blackhawk-Armstrong Wrenches.

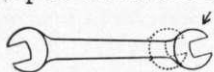
Mechanics who have long recognized Blackhawk's leadership in socket wrench manufacture welcome this new and superior line of open end wrenches.

Chrome Vanadium — Chromium Plated

These tools are of Chrome Vanadium steel and plated with Chromium over nickel and copper. The resulting beautiful finish is matched by the extreme toughness of the steel underneath. Naturally these tools may be made much thinner and lighter than carbon steel wrenches of approximately equal strength. The Chromium finish not only retains its luster, but is more resistant to rust and extremely hard so that tools remain new looking after long service.

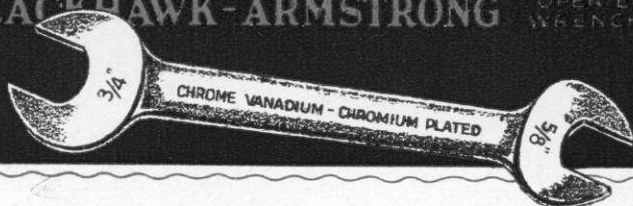
Length, Thinness, Strength

Note extra leverage. Blackhawk-Armstrong Open Ends are made extra long and light with smaller and thinner heads. That means added leverage and easier operation in close quarters. Mechanics will find these tools provide comfortable grips, added safety, a 100% satisfactory tool that will answer the open end wrench problem.



Our Guarantee

Blackhawk-Armstrong Open End wrenches are guaranteed not to break or spread. Any wrench that does not meet this claim will be replaced without charge.



The Engineers Type

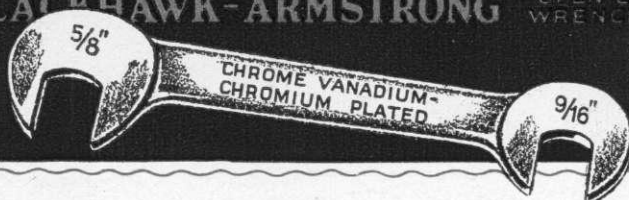
Number	For U.S. Std. Nuts; Size Bolts Inches	For Hex Head Cap Screws; Dia. Screws Inches	For S.A.E. Std. Nuts and Cap Screws; Dia. Screws Inches	Openings Milled Inches	Extreme Length Inches	Thickness Heads Inches	Mechanics Net Price
1721	$\frac{1}{8}$	$\frac{1}{8}$ & $\frac{9}{16}$		$\frac{5}{16}$ & $\frac{3}{8}$	$5\frac{1}{2}$	$1\frac{3}{64}$	\$0.45
1021	$\frac{1}{8}$ & $\frac{9}{16}$	$\frac{1}{8}$		$\frac{5}{16}$ & $1\frac{1}{32}$	$5\frac{1}{2}$	$1\frac{3}{64}$	.45
1722	$\frac{1}{8}$	$\frac{1}{8}$ & $\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$ & $\frac{1}{2}$	$5\frac{1}{2}$	$1\frac{3}{64}$	.45
1723		$\frac{9}{16}$ & $\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$ & $\frac{1}{2}$	$5\frac{1}{2}$	$1\frac{3}{64}$	.45
1022	$\frac{1}{8}$ & $\frac{1}{4}$	$\frac{1}{8}$ & $\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{16}$ & $\frac{1}{2}$	6	$\frac{7}{32}$	.55
1023	$\frac{9}{16}$ & $\frac{1}{4}$	$\frac{9}{16}$ & $\frac{9}{16}$	$\frac{9}{16}$	$1\frac{1}{32}$ & $\frac{1}{2}$	6	$\frac{7}{32}$	.55
1723A		$\frac{9}{16}$ & $\frac{9}{16}$	$\frac{9}{16}$	$\frac{3}{8}$ & $\frac{1}{2}$	6	$\frac{7}{32}$	.55
1024	$\frac{9}{16}$ & $\frac{9}{16}$			$1\frac{1}{32}$ & $1\frac{1}{32}$	$6\frac{1}{2}$	$\frac{1}{4}$	.65
1725	$\frac{1}{4}$	$\frac{1}{4}$ & $\frac{9}{16}$	$\frac{1}{4}$ & $\frac{9}{16}$	$\frac{7}{16}$ & $\frac{1}{2}$	$6\frac{1}{2}$	$\frac{1}{4}$	.65
1725A		$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{7}{16}$ & $\frac{9}{16}$	$6\frac{1}{2}$	$\frac{1}{4}$	.65
1725B	$\frac{1}{4}$	$\frac{9}{16}$ & $\frac{3}{8}$	$\frac{9}{16}$ & $\frac{3}{8}$	$\frac{7}{16}$ & $\frac{9}{16}$	$6\frac{1}{2}$	$\frac{1}{4}$	.65
1025	$\frac{1}{4}$ & $\frac{9}{16}$	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{7}{16}$ & $1\frac{1}{32}$	$6\frac{1}{2}$	$\frac{1}{4}$	.65
1726	$\frac{1}{4}$	$\frac{9}{16}$ & $\frac{7}{16}$	$\frac{9}{16}$ & $\frac{7}{16}$	$\frac{7}{16}$ & $\frac{5}{8}$	7	$\frac{9}{32}$	.80
1026	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{1}{2}$ & $1\frac{1}{16}$	7	$\frac{9}{32}$	.80
1727		$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{9}{16}$ & $\frac{5}{8}$	7	$\frac{9}{32}$	.80
1027	$\frac{9}{16}$ & $\frac{3}{8}$			$1\frac{1}{32}$ & $1\frac{1}{16}$	7	$\frac{9}{32}$	.80
1027C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{9}{16}$ & $1\frac{1}{16}$	7	$\frac{9}{32}$	.80
1728		$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{3}{4}$	8	$\frac{9}{16}$	.95
1028	$\frac{9}{16}$ & $\frac{7}{16}$			$1\frac{1}{32}$ & $2\frac{1}{32}$	8	$\frac{9}{16}$	.95
1028S	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{5}{8}$ & $2\frac{1}{32}$	8	$\frac{9}{16}$	.95
1729		$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{5}{8}$ & $\frac{3}{4}$	8	$\frac{9}{16}$	.95
1029	$\frac{3}{8}$ & $\frac{7}{16}$			$1\frac{1}{16}$ & $2\frac{1}{32}$	8	$\frac{9}{16}$	.95
1030	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{5}{8}$	$\frac{9}{16}$	$1\frac{1}{16}$ & $\frac{7}{8}$	8	$\frac{9}{16}$	.95
1731		$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{1}{2}$	$\frac{3}{4}$ & $1\frac{1}{16}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1731A	$\frac{1}{2}$	$\frac{1}{2}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{3}{4}$ & $\frac{7}{8}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1031	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{5}{8}$	$\frac{9}{16}$	$2\frac{1}{32}$ & $\frac{7}{8}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1731B	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{9}{16}$	$1\frac{1}{16}$ & $\frac{7}{8}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1032	$\frac{7}{16}$ & $\frac{9}{16}$			$2\frac{1}{32}$ & $2\frac{1}{32}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1033A	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{7}{8}$ & $1\frac{1}{16}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1033	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{3}{8}$	$\frac{9}{16}$	$\frac{7}{8}$ & $2\frac{1}{32}$	$9\frac{1}{2}$	$\frac{3}{8}$	1.25
1733	$\frac{1}{2}$	$\frac{3}{8}$ & $\frac{3}{4}$	$\frac{9}{16}$ & $1\frac{1}{16}$	$\frac{7}{8}$ & 1	$10\frac{3}{4}$	$\frac{7}{16}$	1.70
1033C		$\frac{3}{4}$	$\frac{5}{8}$ & $1\frac{1}{16}$	$1\frac{1}{16}$ & 1	$10\frac{3}{4}$	$\frac{7}{16}$	1.70
1034	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{5}{8}$	$\frac{9}{16}$ & $\frac{3}{4}$	$\frac{7}{8}$ & $1\frac{1}{16}$	$10\frac{3}{4}$	$\frac{7}{16}$	1.70
1734	$\frac{1}{2}$	$\frac{5}{8}$ & $\frac{7}{8}$	$\frac{9}{16}$	$\frac{7}{8}$ & $1\frac{1}{8}$	$10\frac{3}{4}$	$\frac{7}{16}$	1.70
1035	$\frac{9}{16}$ & $\frac{5}{8}$		$\frac{3}{4}$	$1\frac{1}{16}$ & $1\frac{1}{16}$	$10\frac{3}{4}$	$\frac{7}{16}$	1.70
1735		$\frac{3}{4}$ & $\frac{7}{8}$	$1\frac{1}{16}$	1 & $1\frac{1}{8}$	$12\frac{1}{4}$	$\frac{1}{2}$	2.40
1036	$\frac{9}{16}$ & $\frac{3}{4}$	1	$\frac{7}{8}$	$1\frac{1}{16}$ & $1\frac{1}{4}$	$12\frac{1}{4}$	$\frac{1}{2}$	2.40
1736	$\frac{3}{4}$ & $\frac{3}{4}$	$\frac{3}{4}$ & 1	$1\frac{1}{16}$ & $\frac{7}{8}$	1 & $1\frac{1}{4}$	$12\frac{1}{4}$	$\frac{1}{2}$	2.40
1037	$\frac{5}{8}$ & $\frac{3}{4}$	$\frac{3}{4}$ & 1	$\frac{3}{4}$ & $\frac{7}{8}$	$1\frac{1}{16}$ & $1\frac{1}{4}$	$12\frac{1}{4}$	$\frac{1}{2}$	2.40
1737	$\frac{3}{4}$	$\frac{7}{8}$ & 1	$\frac{7}{8}$	$1\frac{1}{8}$ & $1\frac{1}{4}$	$12\frac{1}{4}$	$\frac{1}{2}$	2.40



No. 26 Set

Slip one of these silver-blue babies in your hand. You'll enthuse at the over-reach in length, the thinness and beauty of design of a really fine tool.

Set contains one each: Nos. 1723, 1025, 1027C, 1028S, 1731A and 1033C. Mechanics net price in box, \$5.30
In leatherette roll\$6.00



The Obstruction or Right Angle Type

For getting into difficult places. Narrow pointed jaws—projecting from same side of handle. Strong—comfortable to use, openings at 85° angle.

Number	For U.S. Std. Nuts Size Bolts	For Hex Head Cap Screws; Diameter Screws	For S.A.E. Std. Nuts and Cap Screws; Dia. Screws	Openings Milled	Extreme Length, Approx.	Thickness Heads	Mechanics Net Price
2721	$\frac{3}{8}$	$\frac{3}{8}$ & $\frac{7}{16}$		$\frac{5}{16}$ & $\frac{3}{8}$	4 $\frac{1}{4}$	$\frac{13}{64}$	\$.45
2021	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{3}{8}$		$\frac{5}{16}$ & $\frac{13}{32}$	4 $\frac{1}{4}$	$\frac{13}{64}$	.45
2722	$\frac{1}{8}$	$\frac{1}{8}$ & $\frac{1}{4}$	$\frac{1}{4}$	$\frac{5}{16}$ & $\frac{7}{16}$	4 $\frac{1}{4}$	$\frac{13}{64}$	.45
2723		$\frac{7}{16}$ & $\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$ & $\frac{7}{16}$	4 $\frac{1}{4}$	$\frac{13}{64}$	.45
2022	$\frac{1}{8}$ & $\frac{1}{4}$	$\frac{1}{8}$ & $\frac{7}{16}$	$\frac{7}{16}$	$\frac{5}{16}$ & $\frac{1}{2}$	4 $\frac{3}{4}$	$\frac{13}{64}$	.55
2023	$\frac{7}{16}$ & $\frac{1}{4}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{13}{32}$ & $\frac{1}{2}$	4 $\frac{3}{4}$	$\frac{13}{64}$	.55
2723A		$\frac{7}{16}$ & $\frac{7}{16}$	$\frac{7}{16}$	$\frac{3}{8}$ & $\frac{1}{2}$	4 $\frac{3}{4}$	$\frac{13}{64}$	.55
2024	$\frac{7}{16}$ & $\frac{5}{16}$			$\frac{13}{32}$ & $\frac{13}{32}$	5 $\frac{1}{2}$	$\frac{15}{64}$	.65
2725	$\frac{1}{4}$	$\frac{1}{4}$ & $\frac{7}{16}$	$\frac{1}{4}$ & $\frac{7}{16}$	$\frac{7}{16}$ & $\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{15}{64}$	.65
2725A		$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{7}{16}$ & $\frac{7}{16}$	5 $\frac{1}{2}$	$\frac{15}{64}$	.65
2725B	$\frac{1}{4}$	$\frac{7}{16}$ & $\frac{3}{8}$	$\frac{7}{16}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{7}{16}$	5 $\frac{1}{2}$	$\frac{15}{64}$	.65
2025	$\frac{1}{4}$ & $\frac{7}{16}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{1}{2}$ & $\frac{13}{32}$	5 $\frac{1}{2}$	$\frac{15}{64}$	.65
2726	$\frac{1}{4}$	$\frac{7}{16}$ & $\frac{7}{16}$	$\frac{7}{16}$ & $\frac{7}{16}$	$\frac{1}{2}$ & $\frac{5}{8}$	6 $\frac{1}{2}$	$\frac{17}{64}$	.80
2026	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{1}{2}$ & $\frac{11}{16}$	6 $\frac{1}{2}$	$\frac{17}{64}$	.80
2727		$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{9}{16}$ & $\frac{5}{8}$	6 $\frac{1}{2}$	$\frac{17}{64}$	.80
2027	$\frac{7}{16}$ & $\frac{3}{8}$			$\frac{13}{32}$ & $\frac{11}{16}$	6 $\frac{1}{2}$	$\frac{17}{64}$	.80
2027C	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{9}{16}$ & $\frac{11}{16}$	6 $\frac{1}{2}$	$\frac{17}{64}$	.80
2728		$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{3}{4}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2028	$\frac{7}{16}$ & $\frac{7}{16}$			$\frac{13}{32}$ & $\frac{23}{32}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2028S	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{5}{8}$ & $\frac{23}{32}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2729		$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{5}{8}$ & $\frac{3}{4}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2029	$\frac{3}{8}$ & $\frac{7}{16}$			$\frac{11}{16}$ & $\frac{23}{32}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2030	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{3}{8}$	$\frac{9}{16}$	$\frac{11}{16}$ & $\frac{7}{8}$	7 $\frac{3}{4}$	$\frac{9}{32}$	.95
2731		$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{3}{4}$ & $\frac{13}{16}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2731A	$\frac{1}{2}$	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{3}{4}$ & $\frac{7}{8}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2031	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{9}{16}$	$\frac{23}{32}$ & $\frac{7}{8}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2731B	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{9}{16}$	$\frac{17}{16}$ & $\frac{7}{8}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2032	$\frac{7}{16}$ & $\frac{9}{16}$			$\frac{23}{32}$ & $\frac{31}{32}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2033A	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{7}{8}$ & $\frac{15}{16}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25
2033	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{5}{8}$	$\frac{9}{16}$	$\frac{7}{8}$ & $\frac{31}{32}$	9 $\frac{1}{4}$	$\frac{23}{64}$	1.25

No. 2005 Set

This set provides the most necessary wrenches, to make rapid and efficient work possible in close quarters. Contents one each: Nos. 2723, 2025, 2027C, 2028S, and 2731A.

Mechanics net price in box, \$3.70

In leatherette roll\$4.35





The Electrical Type

THESE tiny tools meet with the complete approval of Ignition and Radio Experts. All who do Ignition work or the fussy jobs on electrical systems want a trim set that offers just the little wrench for each nut. The No. 18 set has it. The two-tone, gray-green leatherette case contains ten accurately finished wrenches, listed and illustrated below:

Mechanics Net Prices on Individual Ignition Wrenches

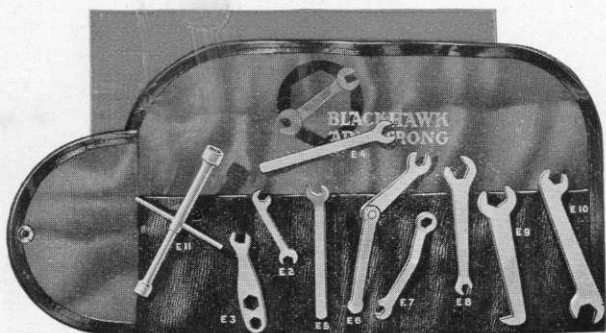
No.	Price	No.	Price
E2	\$.35	E7	\$.45
E3 .....	.35	E8 .....	.45
E4 .....	.35	E9 .....	.45
E5 .....	.35	E10 .....	.45
E6 .....	.50	E11 .....	.65

Complete, this set weighs but 10 ounces. In the tool roll it fits the pocket like a wallet and it's there when you want it.


Mechanic's net price of No. 18 set:

In box\$3.80

In leatherette roll.....\$4.20



BLACKHAWK "Chief" Socket Wrenches



THESE de luxe socket wrenches and sets combine the utmost in beauty of finish with the unique "Lock-On" feature that offers advantages found in no other wrenches.

In their unique socket design, the toughness of their chrome vanadium steel, and the glistening beauty of their durable chromium finish, these "Chief" tools are the very last word in socket wrench development.

With the
Great
"LOCK-ON"
Features—
and 4 others

- 1 *"Lock-On" Sockets*—may be used either as quick detachable, or positively "locked-on" the handle yet instantly removed when necessary.
- 2 *Double Hexagon Sockets*—a great convenience, especially on work in close quarters. These sockets take hold at any position of the handle. Greatly speed up work.
- 3 *Chrome Vanadium Steel*—This feature speaks for itself. The toughness of this alloy steel is too well known to need description here.
- 4 *Chromium Plating*—a brilliant, rust resisting finish, amazingly long-lived, and easy to keep bright and clean. Used for the first time on socket wrenches.
- 5 *Special Metal Case*—heavy gauge steel with rich red-and-black crackle finish. Inside of case has bronze metal finish. A beautiful case for beautiful tools.

The Chief Tools

EACH handle and socket listed here is of Chrome Vanadium and finished in the popular "blue silver" Chromium. Sockets are double hexagon and with the handles have the important "Lock-on" feature.

Blackhawk black enameled line of sockets and handles will interchange with these but cannot enjoy the Lock-on feature.

Take a slant at the individual items in these sets.

First there's the 9506, a brace handle with wide sweep. Two speed grips knurled to the Queen's taste—length 15 $\frac{5}{8}$ ", weight 1 lb. 8 oz. Price \$1.65.

Now comes 9611, the speeder handle. It has the new Blackhawk knob, practically indestructible. Overall length 19", weight 2 lbs. Price \$1.50.

Here's the 9811, the finest, strongest, best looking ratchet wrench in the world. Thin tapered on the working end. Six different steels in this tool. Partly Swedish. Length 10", weight 1 lb. 5 oz. Price \$2.50.

Fourth is number 9201 a whale of an offset for husky work. Solid, deep knurled grip. Length 10 $\frac{3}{8}$ ", weight 1 lb. 2 oz. Price \$1.15.

The most necessary tool of all is number 9204, the sliding T. It's an offset wrench too, if required. Length 10 $\frac{1}{4}$ ", weight 1 lb. Price \$0.90.

Oh, yes! Mechanics must have extension bars. These have revolving steel grips. The 9210 is 10" long. Weight 1 lb. Price \$1.15.

No. 9206 is 6" long, weight 14 oz. Price \$1.00.

No. 9001 sounds like a phone number but it's a key or unlocking pin for releasing the lock-on trip ball. If lost, mechanic can use a nail, rivet, or center punch equally as well. Price \$0.05.

The 8836 is the spark plug socket for Fords and those cars that use a 1 $\frac{1}{8}$ " size plug, weight 10 oz. Price \$0.85

A 90° angle features the new 8502 universal joint. Will reach all those hidden and inaccessible nuts. Weight 6 oz. Price \$1.65.

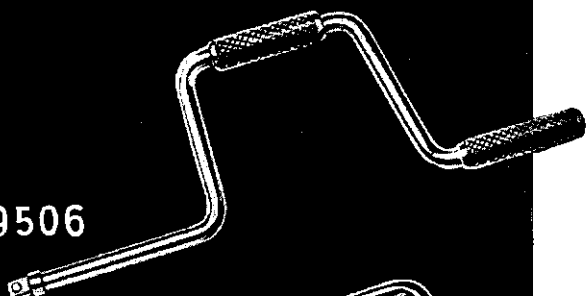
No. 8552 Drag link and tie rod socket is a mighty essential tool for every mechanic. Weight 2 oz. Price \$0.55.

The square socket 8016 and double hex. 8420 represent the sockets. See tables below. They'll take the fight out of the toughest nuts. Have long nose and slim taper for close work.

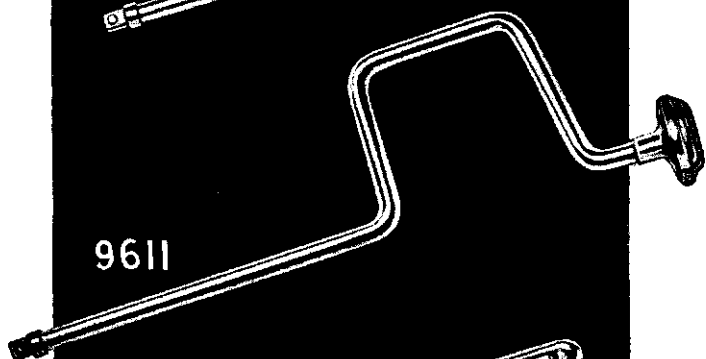
TABLE OF DOUBLE HEXAGON SOCKETS					
Standard Double Hex. Sockets	Socket Opening	U.S.S. Nuts and Bolts	S.A.E. Nuts and Cap Screws	U.S.S. Cap Screws	Price
8414	$\frac{3}{16}$ "		$\frac{1}{4}$ "	$\frac{1}{4}$ "	\$0.45
8416	$\frac{1}{2}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{5}{16}$ "	.45
8418	$\frac{9}{16}$ "		$\frac{3}{8}$ "	$\frac{3}{8}$ "	.45
8419	1 $\frac{1}{32}$ "	$\frac{5}{16}$ "			.45
8420	$\frac{5}{8}$ "		$\frac{7}{16}$ "	$\frac{7}{16}$ "	.45
8421	2 $\frac{1}{32}$ "				.45
8422	1 $\frac{1}{16}$ "	$\frac{3}{8}$ "			.45
8424	$\frac{3}{4}$ "		$\frac{1}{2}$ "	$\frac{1}{2}$ "	.50
8425	2 $\frac{1}{32}$ "	$\frac{7}{16}$ "			.50
8426	1 $\frac{1}{16}$ "			$\frac{9}{16}$ "	.50
8428	$\frac{7}{8}$ "	$\frac{1}{2}$ "	$\frac{9}{16}$ "	$\frac{3}{4}$ "	.50
8430	1 $\frac{1}{16}$ "		$\frac{3}{4}$ "		.55
8431	1 $\frac{1}{32}$ "	$\frac{9}{16}$ "			.55
8432	1"		1 $\frac{1}{16}$ "	$\frac{3}{4}$ "	.55

TABLE OF SQUARE SOCKETS					
Std. Sq. Sockets	Socket Opening	U.S.S. Nuts and Bolts	U.S.S. Screws	Cap Sq. Head Set Screw	Price
8012	$\frac{3}{8}$ "		$\frac{1}{4}$ "	$\frac{3}{8}$ "	\$0.45
8014	$\frac{7}{16}$ "		$\frac{5}{16}$ "	$\frac{7}{16}$ "	.45
8016	$\frac{1}{2}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	.45
8018	$\frac{9}{16}$ "		$\frac{7}{16}$ "	$\frac{9}{16}$ "	.45
8020	$\frac{5}{8}$ "		$\frac{1}{2}$ "	$\frac{5}{8}$ "	.45

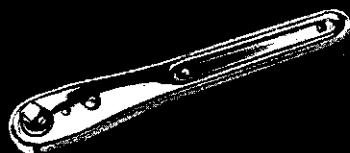
9506



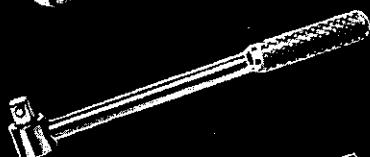
9611



9811



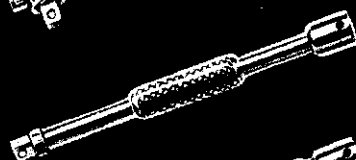
9201



9204



9210



9001



9206



8552



8502



8836



8016

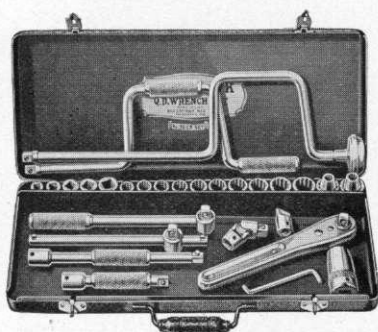


8420



See Socket Table

BLACKHAWK "Chief" Socket Wrenches



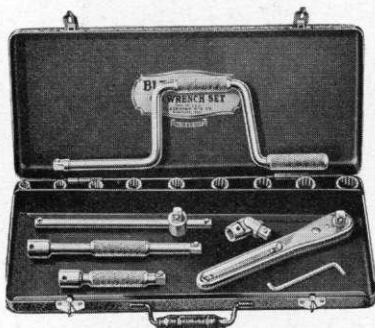
30CD Set

The Chief of the Chiefs—Makes any workman a better workman. A wonderful competent set of tools. Handles that fit the hand—Sockets that fit the handles—Complete tools that fit the job. Here's the setup:

CONTENTS OF 30CD SET

- | | |
|----------------------------------|---|
| 1 No. 9611 Speeder handle. | 1 No. 8552 Drag link and tie rod socket. |
| 1 No. 9506 Brace handle. | 1 No. 8836 1 1/8" Spark plug socket. |
| 1 No. 9811 10" Ratchet handle. | 1 No. 9001 Release tool. |
| 1 No. 9201 Offset handle. | 14 Double hexagon sockets from 7/16" to 1" inclusive. |
| 1 No. 9204 Sliding T and offset. | 5 Square sockets from 3/8" to 5/8" inclusive. |
| 1 No. 9210 10" Extension bar. | |
| 1 No. 9206 6" Extension bar. | |
| 1 No. 8502 Universal joint. | |

No. 30CD (Complete in metal case). Mechanics
net price\$21.00



16CD Set

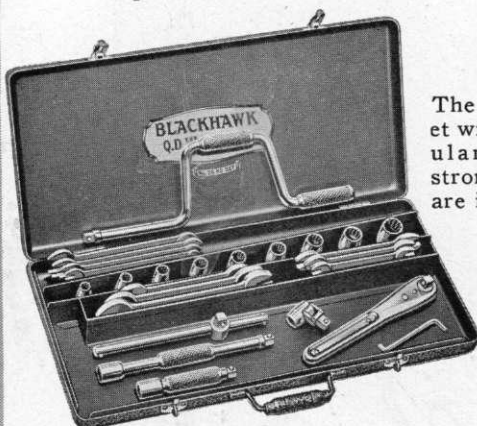
All metal cases used on Chief Sets are described on page 8. Mottled maroon and black finish—inside in copper.

This set is a miniature of the 30CD with fewer handles and sockets but with same size carrying case.

CONTENTS OF 16CD SET

- | | |
|--------------------------------------|--|
| 1 No. 9506 Brace handle. | 1 No. 9206 6" Extension bar. |
| 1 No. 9811 Ratchet handle. | 1 No. 8502 Universal joint. |
| 1 No. 9204 Combination T and offset. | 1 No. 9001 Release tool. |
| 1 No. 9210 10" Extension bar. | 9 Double Hexagon sockets from 7/16" to 7/8" inclusive. |

No. 16CD (Complete in metal case). Mechanics
net price\$13.25



26KD Set

The most necessary socket wrenches and most popular Blackhawk-Armstrong open end wrenches are in this set. 16 sockets and handles, same as in 16CD Set, six engineers and 4 tappet open ends. (See table bottom page 17). Case large enough to allow additional sockets, handles, and open ends.

No. 26KD (Complete in metal case). Mechanics
net price\$25.15



The Miniature Type

LITTLE gems these smallest of drop forged wrenches are the tools for the fussy little tasks. Those tough baby nuts must give up the fight when you clamp down with a Miniature Blackhawk-Armstrong wrench.

The No. 20 Set contains one each of the wrenches shown in this table:

No.	Milled Openings	Lgth.	Thick-ness Hds.	Mechanics Net Price
H-10	$\frac{1}{16}$ & $\frac{7}{32}$	2 $\frac{1}{2}$ "	$\frac{3}{32}$	\$.45
H-12	$\frac{1}{4}$ & $\frac{9}{32}$	3"	$\frac{5}{32}$	.45
H-14	$\frac{5}{16}$ & $\frac{11}{32}$	3 $\frac{3}{4}$ "	$\frac{3}{16}$	.50
H-16	$\frac{3}{8}$ & $\frac{7}{16}$	4 $\frac{1}{8}$ "	$\frac{7}{32}$	.50
H-18	$\frac{1}{2}$ & $\frac{13}{16}$	4 $\frac{1}{8}$ "	$\frac{7}{32}$	.50

Mechanics net price of No. 20 Set.

In box\$2.05

In Leatherette roll..... 2.40



These open ends in the 26KD (See P. 16). Out of the many popular

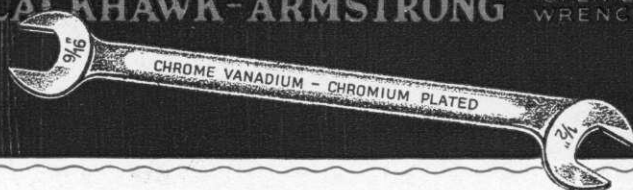


open end wrenches these six engineers and four tappets were chosen as *most necessary* and are included in the "Chief" set. You be the judge.

Tables are given below with further Engineers information on page 10 and the complete tappet story on page 18.



Tappet Wrenches			Engineers Wrenches	
No.	Straight Opening	Angle Opening	No.	Openings Milled, Inches
402-B	$\frac{1}{2}$ "	$\frac{9}{16}$ "	1723	$\frac{3}{8}$ " & $\frac{7}{16}$ "
402-C	$\frac{9}{16}$ "	$\frac{1}{2}$ "	1025	$\frac{7}{16}$ " & $\frac{1}{2}$ "
404-B	$\frac{5}{8}$ "	$\frac{11}{16}$ "	1027-C	$\frac{9}{16}$ " & $\frac{11}{16}$ "
404-C	$\frac{11}{16}$ "	$\frac{5}{8}$ "	1028-S	$\frac{5}{8}$ " & $\frac{23}{32}$ "
			1731-A	$\frac{3}{4}$ " & $\frac{7}{8}$ "
			1033-C	$\frac{11}{16}$ " & 1"



Tappet Type 22½° Angle

Extreme leverage because of length which also allows tappet adjustment while motor is hot, are the two real features of these wrenches. Made in two styles—with same size opening on each end — opposite ends with different openings.

No.	Milled Openings	S.A.E. Std. Nuts Bolt Size	U.S.S. Nuts Bolt Size	Extreme Length	Thickness of Head	Mechanics Net Price
401	3/8			8	5/32	\$1.20
401A	7/16	1/4		8	5/32	1.20
402	1/2	5/16	1/4	8 1/2	5/32	1.20
402A	1 1/32			8 1/2	5/32	1.20
403	9/16	3/8		8 1/2	5/32	1.20
403A	1 5/32		5/16	8 1/2	5/32	1.20
404	5/8	7/16		8 1/2	7/16	1.35
405	1 1/16		3/8	8 1/2	7/16	1.35
406	3/4	1/2		9	7/32	1.50
406A	2 5/32		7/16	9	7/32	1.50
407	1 1/16			9	7/32	1.50
407A	7/8	9/16	1/2	9	7/32	1.50
408	1 5/16	5/8		9	7/32	1.70
408A	2 1/32		9/16	9	7/32	1.70
409	1	1 1/16		9	7/32	1.70
	S L	S L	S L			
402B	1/2 & 9/16	5/16 & 3/8	1/4	8 1/2	5/32	\$1.20
432C	9/16 & 1/2	3/8 & 5/16	1/4	8 1/2	5/32	1.20
404B	5/8 & 1 1/16	7/16	3/8	8 1/2	7/16	1.35
404C	1 1/16 & 5/8	7/16	3/8	8 1/2	7/16	1.35
406B	3/4 & 7/8	1/2 & 9/16	1/2	9	7/16	1.50
406C	7/8 & 3/4	9/16 & 1/2	1/2	9	7/16	1.50

S—Straight end. L—22½° angle.

No. 412 Tappet Set

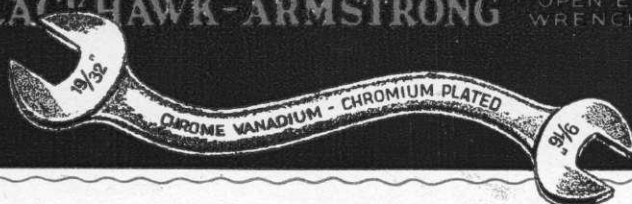
(See page 19 for
No. 400 Set)

Same size opening on ends—One straight other 22½° angle. Will adjust 75% of all tappets.

Contents — Two each: 402, 403, 404, and 405.

Mechanics net price of 412 set in box\$9.10
In leatherette roll\$9.80





The "S" Type

22½° Angle Double Head

Blackhawk—Armstrong "S" Wrenches are long and light as compared to these capacities. Jaws are narrow and can get at the nut that is placed in close quarters. Finish in Chromium with heads buffed bright.

Number	For U.S. Std. Nuts; Size Bolts	For Hex Head Cap Screws; Dia. Screws	For S.A.E. Std. Nuts and Cap Screws; Size Bolts	Openings Milled	Extreme Length, Approx.	Weight Each, Lbs.	Thickness Heads	Mechanics Net Price
1075B		⅝ & ¾	¼	⅜ & ⅞	6 ¼	⅓	¼	\$0.70
1075A		⅝ & ⅞	⅞	¾ & 1½	6 ¼	⅓	¼	.70
1075	⅝ & ¼	⅝ & ⅞	⅞	1½ & 1½	6 ¼	⅓	¼	.70
1077S	¼	¼ & ⅝	¼ & ⅝	⅞ & 1½	7 ¼	¼	⅝	.95
1077B	¼	⅝ & ⅜	⅝ & ⅜	1½ & ⅞	7 ¼	¼	⅝	.95
1077	¼	⅝ & ⅞	⅝ & ⅞	1½ & ⅝	7 ¼	¼	⅝	.95
1079B	⅝	⅜	⅜	⅞ & 1½	8 ¼	½	⅝	1.15
1079S		⅜ & ⅞	⅜ & ⅞	⅞ & ⅝	8 ¼	½	⅝	1.15
1079A	⅜	⅜	⅜	⅞ & 1½	8 ¼	½	⅝	1.15
1079	⅜	⅞	⅞	⅝ & 1½	8 ¼	½	⅝	1.15
1079C		⅞ & 1½	⅞ & 1½	⅝ & ¾	8 ¼	½	⅝	1.15
1081	⅜	1½ & ⅞	1½	1½ & 1½	9 ¼	¾	⅝	1.35
1081B		1½ & ⅝	1½ & ⅝	¾ & 1½	9 ¼	¾	⅝	1.35
1081A	1½	1½ & ⅝	1½ & ⅝	¾ & ⅞	9 ¼	¾	⅝	1.35
1083		⅝ & ¾	⅝	2½ & 1½	10 ¾	1	⅞	1.80
1083B	1½	⅝ & ¾	⅝ & 1½	⅞ & 1	10 ¾	1	⅞	1.80
1083A		¾	⅝ & 1½	1½ & 1	10 ¾	1	⅞	1.80
1085		¾ & ⅞	1½	1 & 1½	12	2	1½	2.50
1085C	⅝ & ¾	1	¾ & ⅞	1½ & 1½	12	2	1½	2.50
1085B	¾	⅞ & 1	⅞	1½ & 1½	12	2	1½	2.50

No. 400 Tappet Set

(See page 18 for tables.)

A smaller set — fewer wrenches — but more sizes and less duplication. Different sized openings on each end.

Contents — One each:
402B, 402C, 404B, 404C,
406B, and 406C.

Mechanics net price of
400 set in box\$7.25

In leatherette roll, \$7.95





Brake Type



2537—Openings, $\frac{1}{2}$ " on $22\frac{1}{2}$ ° end, $\frac{9}{16}$ " on 60° end.

2538—Openings, $\frac{9}{16}$ " on $22\frac{1}{2}$ ° end, $\frac{1}{2}$ " on 60° end. Both above for use on LaSalle Cars.

2526—Openings, $\frac{5}{8}$ " on $22\frac{1}{2}$ ° end, $\frac{5}{8}$ " on 60° end. Used on all Lockhead Brakes.

2526A—Openings, $\frac{9}{16}$ " on $22\frac{1}{2}$ ° end, $\frac{9}{16}$ " on 60° end.

2526B—Openings, $\frac{11}{16}$ " on $22\frac{1}{2}$ ° end, $\frac{11}{16}$ " on 60° end.

All wrenches are $6\frac{1}{4}$ " long, heads $\frac{3}{32}$ " thick.

Mechanics net price each of 5 wrenches above.....\$1.00



2542—For Chevrolet Cars, $7\frac{1}{2}$ " long, openings $\frac{5}{8}$ "- $\frac{3}{4}$ ", heads $\frac{7}{32}$ " thick.

Mechanics net price.....\$1.00



2534—For Chrysler Cars, $3\frac{1}{8}$ " long $\frac{5}{8}$ " opening, heads $\frac{3}{32}$ " thick.

Mechanics net price.....\$.60

2536—For Studebaker Cars, $4\frac{7}{8}$ " long, $\frac{7}{8}$ " opening, heads $\frac{3}{32}$ " thick.

Mechanics net price.....\$.85



2539—For All Bendix Brakes. $7\frac{1}{2}$ " long, opening small end $\frac{1}{4}$ "- $\frac{1}{2}$ ", large end $\frac{3}{4}$ "; heads $\frac{5}{16}$ " thick.

Mechanics net price.....\$1.20



2541—For Studebaker Cars, 10" long, $\frac{7}{8}$ " opening, heads $\frac{5}{16}$ " thick.

Mechanics net price.....\$1.60

2535—For Dodge Cars, 9" long, $\frac{7}{8}$ " opening, heads $\frac{5}{16}$ " thick.

Mechanics net price.....\$1.00

No. 35 Brake Set

For the Brake Service Station. Enables mechanics to make speedy and efficient brake adjustment on any car. Set contains one each: Nos. 2534, 2536, 2539, 2535, 2541, 2542, 2537, 2538, and 2526.

Mechanics net price of the No. 35 Set. In box\$8.30

In leatherette roll\$9.20



For Model "T" Fords

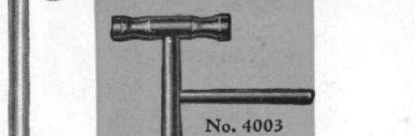
Flywheel Cap Screw Wrench

No. 4322 Dia. handle $\frac{3}{8}$ " — $\frac{11}{16}$ " hex. socket. To remove cap screws with motor in car.
Price, each\$.85



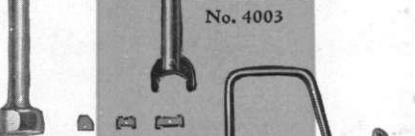
Connecting Rod Wrench

No. 4020X Dia. handle $\frac{1}{8}$ " — $\frac{5}{8}$ " hex. socket. For all rods including the fourth.
Price, each\$.50



Valve Grinders

No. 4003 4" long. Short type for speed.
Price, each\$.40

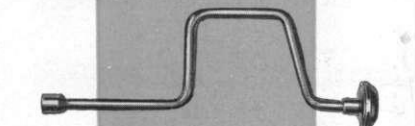


No. 4002 19" long. Will reach all valves. Extra attachments to fit all cars.
Price, each\$.70



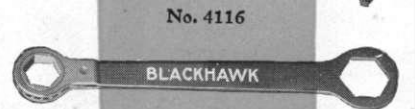
General Usage Wrench

No. 4116 Dia. handle $\frac{1}{2}$ " — $\frac{1}{2}$ " hex. socket. For crank case cover screws, differential drive gear screws, etc.
Price, each\$.65

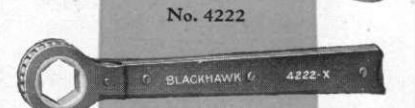


Transmission Band Wrenches

No. 4222 Socket sizes $\frac{11}{16}$ " and $\frac{13}{16}$ ". Length $8\frac{3}{4}$ ". Also used as Spark Plug wrench.
Price, each\$.40

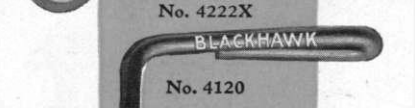


No. 4222X Socket size $\frac{11}{16}$ " hex. Length $6\frac{3}{4}$ ". Socket end used on brake and reverse bands—screw driver end for removing transmission cover door screws.
Price, each\$.65



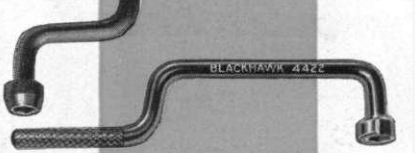
Connecting Rod Wrench

No. 4120 Dia. handle $\frac{1}{2}$ " — $\frac{5}{8}$ " hex. socket. For all rods.
Price, each\$.50



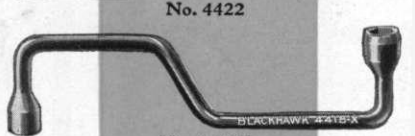
Fly Wheel Cap Screw Wrench

No. 4422 Dia. handle $\frac{3}{8}$ ". Specially designed socket $\frac{11}{16}$ ", gives advantage of both socket and open end type.
Price, each\$.85



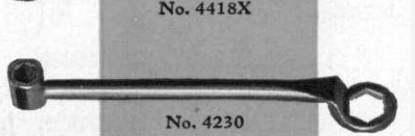
Generator Wrench

No. 4418X Dia. handle $\frac{1}{2}$ ". Socket sizes $\frac{1}{8}$ " and $\frac{5}{8}$ ". For Ford Generator head bolts and carburetor flange shanks.
Price, each\$.65



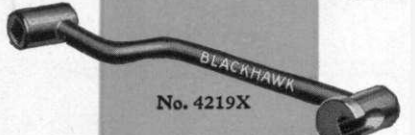
Main Bearing Wrench

No. 4219X Dia. handle $\frac{3}{8}$ " — $\frac{3}{8}$ " hex. and $\frac{1}{8}$ " sq. sockets. For main bearing bolts and front and center bearing bolts with motor in chassis. Special open socket for piston pin clamp screw.
Price, each\$1.05



Spark Plug and Cylinder Head Wrench

No. 4230 Dia. handle $\frac{3}{8}$ " — $\frac{5}{8}$ " and $\frac{11}{16}$ " hex. sockets. For cylinder head cap screws and spark plugs on Ford cars and trucks.
Price, each\$.65



(These Prices Net to Mechanics)

Wrenches for Models A and T Fords

Tee Wrenches

No. 3118 Dia. handle $\frac{1}{2}$ "—length 12"— $\frac{9}{16}$ " hex. socket—fits Ford crank case bolts, engine base bolts, etc.

No. 3120 Dia. handle $\frac{1}{2}$ "—length 12"— $\frac{5}{8}$ " hex. socket—for cylinder head bolts, etc.
Price, each\$.50

Universal Joint Tee

No. 520 Dia. handle $\frac{1}{2}$ "—length 12"— $\frac{5}{8}$ " socket. For connecting rods, cylinder head, etc.
Price, each\$1.50

Standard Speeders

No. 6118 Dia. handle $\frac{1}{2}$ "—length 19 $\frac{3}{4}$ "— $\frac{1}{8}$ " hex. socket—used especially for engine base bolt nuts.

No. 6120 Dia. handle $\frac{1}{2}$ "—length 19 $\frac{3}{4}$ "— $\frac{5}{8}$ " hex. socket—for use on cylinder head bolts.
Price, each\$.70

Long Speeders

No. 6316 Dia. handle $\frac{1}{2}$ "—length 28"— $\frac{1}{2}$ " hex. socket—Especially for rear fender bolts.

No. 6318 Dia. handle $\frac{1}{2}$ "—length 28"— $\frac{1}{8}$ " hex. socket.
Price, each\$1.00

Cylinder Head Bolt Wrench

No. 4320 Dia. handle $\frac{1}{2}$ ". Sockets $\frac{1}{2}$ " and $\frac{5}{8}$ " hex.
Price, each\$.60

Spindle and Radius Rod Wrench

No. 4218 Dia. handle $\frac{1}{8}$ "— $\frac{1}{8}$ " and $\frac{3}{4}$ " hex. sockets. Used on main bearing nuts, differential case stud nuts, etc.
Price, each\$.70

Wrenches for General Use

These wrenches used on front spring perch, front radius rod, etc.

No. 4330 Dia. handle $\frac{5}{8}$ ". Hex. Sockets $\frac{1}{8}$ "— $\frac{1}{8}$ "— $\frac{7}{8}$ ".
Price, each\$.85

No. 4424 Dia. handle $\frac{1}{8}$ ". Hex. Sockets $\frac{1}{2}$ "— $\frac{9}{16}$ "— $\frac{5}{8}$ "— $\frac{3}{4}$ ".
Price, each\$.75

Tire Carrier Wrench

No. 2224 Dia. handle $\frac{5}{8}$ "— $\frac{7}{8}$ " and $\frac{3}{4}$ " hex. sockets. Fits steering knuckle arm, etc.
Price, each\$.65

Main Bearing Wrenches

No. 3018 Dia. handle $\frac{5}{8}$ "—16" long. $\frac{9}{16}$ " sq. socket. For center main bearing with motor in car—and front bearing with motor removed.
Price, each\$1.20

No. 4124 Dia. handle $\frac{3}{8}$ "—15" long. Takes up rear main bearing bolt without removing motor from car.
Price, each\$.75

No. 4024 Dia. handle $\frac{5}{8}$ "—14" long. $\frac{3}{4}$ " hex. socket. Designed for use when motor is removed from car.
Price, each\$.75

No. 4018 Dia. handle $\frac{5}{8}$ "—14" long. $\frac{1}{8}$ " sq. socket. For front and center main bearing bolts.
Price, each\$.75

(These Prices Net to Mechanics)

No. 3118

No. 520

No. 6118

No. 4218

No. 4320

No. 4330

No. 4424

No. 2224

No. 3018

No. 4124

No. 4024

No. 4018

Special Wrenches For Buick

Cylinder Head Wrenches

For removing cylinder head cap screws without disturbing rocker arm assembly. Dia. handle $\frac{1}{8}$ ".

No. 2020 For Buick Master Six. 1924-1927.

Price, each\$1.10

No. 2020X For Buick Standard Six.

Price, each\$1.10

No. 2020J For 1928-1929 Buicks.

Price, each\$1.10

Cylinder Block Wrenches

Double hexagon socket wrenches for Buick Master and Standard Six Models.

No. 2320 For Standard Six Models. $\frac{5}{8}$ " socket — $13\frac{3}{4}$ " long for right rear stud nut only.

Price, each\$1.20

No. 2520 For Standard Six Models. $\frac{5}{8}$ " socket — $15\frac{7}{8}$ " long, for stud nuts except right rear.

Price, each\$1.20

No. 2324 For Master Six Models. $\frac{3}{4}$ " socket — $14\frac{7}{8}$ " long for right rear nut only.

Price, each\$1.20

No. 2524 For Master Six Models. $\frac{3}{4}$ " socket — $14\frac{3}{4}$ " long for all stud nuts except right rear stud nut.

Price, each\$1.20

Special Wrenches For Model "A" Fords

Valve Grinder Attachment

No. 4002A Vacuum cup made of high grade pliable rubber to fit Blackhawk valve grinders Nos. T11-4002-4003. Attach to valve by merely pushing down.

Price, each\$.25

Brake Adjusting Wrench

No. 4014X Square sockets — $\frac{7}{8}$ " for Model "A" cars and $\frac{1}{2}$ " for "AA" trucks. Dia. handle $\frac{1}{8}$ " with knurled grip.

Price, each\$.75

Cylinder Head and Spark Plug Wrench

No. 4236 Also fits motor drain plug. Equipped with $1\frac{1}{8}$ " hex. box socket and $\frac{1}{16}$ " hex. socket. Dia. handle $\frac{1}{8}$ ".

Price, each\$.70

Connecting Rod Wrench

No. 4021 Has $\frac{3}{16}$ " hex. socket for use on latest Ford Cars. Dia. handle $\frac{1}{8}$ ".

Price, each\$.50

Oil Pan Screw Wrench

No. 4316 A special length of $8\frac{1}{2}$ " under bend required to remove oil pan screws. Dia. handle $\frac{1}{2}$ " — $\frac{1}{4}$ " hex. socket.

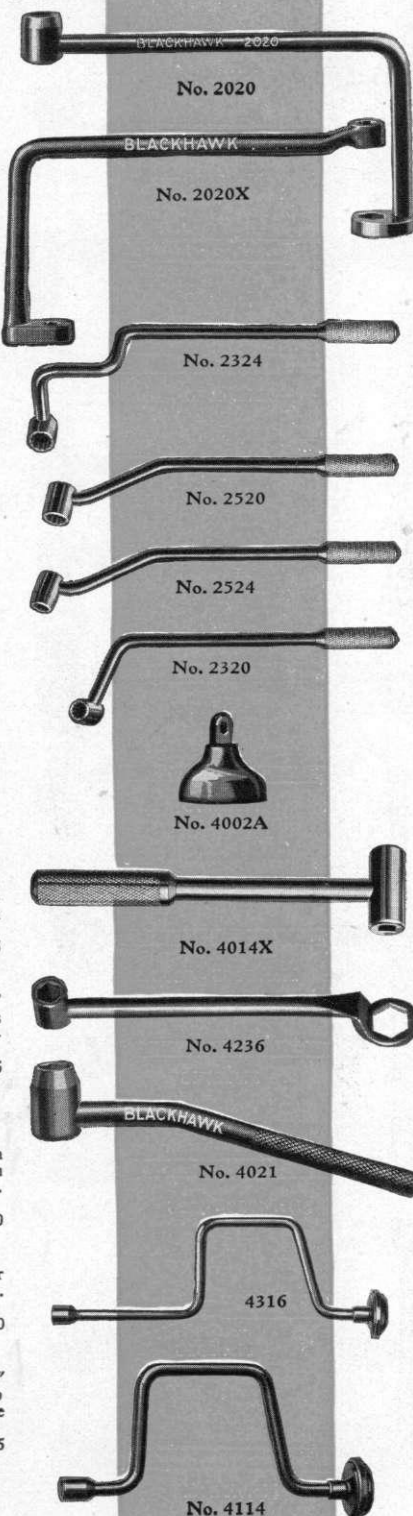
Price, each\$.65

Oil Pump Screen Cover Wrench

No. 4114 To remove oil pump screen cover screws. Length $2\frac{1}{2}$ " under bend — Dia. handle $\frac{1}{2}$ " — $\frac{1}{8}$ " hex. socket.

Price, each\$.65

(These Prices Net to Mechanics)





Offsets and Special Wrenches for Chevrolet Offsets

HAMMER HEAD TYPE

No.	Hex.	Sockets	Length	Dia. Handle	Price		
1416	$\frac{1}{8}$ "	$\frac{1}{2}$ "	6"	$\frac{1}{8}$ "	\$.65		
1618	$\frac{1}{2}$ "	$\frac{9}{16}$ "	6 $\frac{3}{4}$ "	$\frac{1}{2}$ "	.65		
1820	$\frac{9}{16}$ "	$\frac{5}{8}$ "	7 $\frac{1}{2}$ "	$\frac{1}{2}$ "	.75		
2422	$\frac{3}{4}$ "	$\frac{11}{16}$ "	9 $\frac{1}{4}$ "	$\frac{1}{2}$ "	.85		
2830	$\frac{7}{8}$ "	$\frac{13}{16}$ "	10 $\frac{3}{4}$ "	$\frac{5}{8}$ "	1.05		
3432	1"	$\frac{1}{2}$ "	12 $\frac{1}{4}$ "	$\frac{5}{8}$ "	1.15		
3640	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	13"	1 $\frac{1}{8}$ "	1.25		
144	$\frac{1}{2}$ "	$\frac{9}{16}$ "	5 $\frac{5}{8}$ "	10"	$\frac{1}{2}$ "	.70	
4218	$\frac{1}{2}$ "	$\frac{9}{16}$ "	3 $\frac{3}{4}$ "	10"	$\frac{9}{16}$ "	.70	
4320	$\frac{1}{2}$ "	5 $\frac{5}{8}$ "	5 $\frac{5}{8}$ "	10"	$\frac{1}{2}$ "	.60	
4330	$\frac{1}{2}$ "	$\frac{7}{8}$ "	$\frac{11}{16}$ "	12 $\frac{1}{2}$ "	$\frac{5}{8}$ "	.85	
4424	$\frac{1}{2}$ "	$\frac{9}{16}$ "	5 $\frac{5}{8}$ "	3 $\frac{3}{4}$ "	10 $\frac{1}{2}$ "	$\frac{1}{16}$ "	.75

Main Bearing Wrenches

No. 2775 For Chevrolet six main bearing cap screws. Sockets, $\frac{5}{8}$ " and $\frac{3}{4}$ " double hexagon. Price, each\$2.15

No. 4928 Dia. handle $\frac{5}{8}$ ". Box end drop forged to $\frac{1}{16}$ " thickness for front main bearing bolts. Socket end fits center and rear main bearing bolts. $\frac{7}{8}$ " hex. socket. For 1923 and earlier models. Price, each\$1.05

No. 4926 $\frac{11}{16}$ " hex. socket. For 1924 and later models. Price, each\$1.05

Universal-Joint Wrenches

Used many places where small low head wrench is required.

No.	Socket	Dia. Handle
1316	$\frac{1}{2}$ "	$\frac{5}{16}$ "
1318	$\frac{9}{16}$ "	$\frac{3}{8}$ "

Price, each\$.50

General Utility Wrenches

No. 2718 Socket size $\frac{9}{16}$ " double hexagon. For connecting rod bolt nuts, main bearings, cam shaft lock plate cap screw, cylinder head valve cover stud nuts, etc. Price, each\$1.40

No. 2720 Socket size $\frac{5}{8}$ " double hexagon. For head lamp cap screws, front and rear spring clip nuts, motor support (front) cap screw, (rear) bracket bolt nut. Price, each\$1.50

No. 2724 Socket size $\frac{3}{4}$ " double hexagon. Handy for cylinder head cap screws, front axle brake arm pivot nut, front spring clip nuts, rear axle housing bearing retaining nut, etc. Price, each\$1.80

No. 2728 Socket size $\frac{7}{8}$ " double hexagon. For front and rear spring shackle bolts and nuts, oil pump and distributor lock nut, etc. Price, each\$2.15

No. 4924X Dia. handle $\frac{5}{8}$ " — $\frac{9}{16}$ " and $\frac{3}{4}$ " sockets. For Chevrolet cylinder head bolts — manifold nuts — clutch yoke, etc. Price, each\$.80

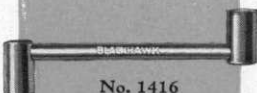
Manifold Wrench

No. 518S Dia. shank $\frac{5}{8}$ ", length 15" — $\frac{9}{16}$ " hex. socket. Dia. sliding bar $\frac{9}{16}$ ", length 10". To remove all nuts holding intake and exhaust manifold to the cylinder head. Price, each\$1.90

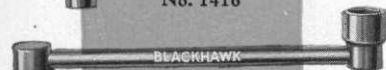
Starting Motor Wrench

No. 520S Dia. shank $\frac{5}{8}$ ", length 12" — $\frac{5}{8}$ " hex. socket. Dia. sliding bar $\frac{9}{16}$ ", length 10". To remove starting motor cap screws. Price, each\$1.85

(These Prices Net to Mechanics)



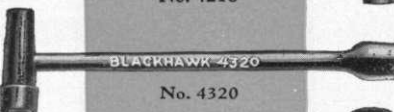
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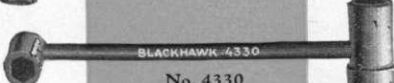
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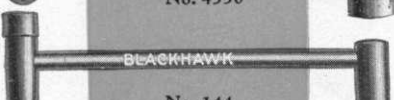
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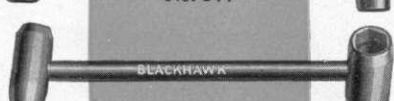
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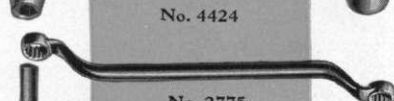
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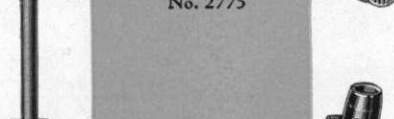
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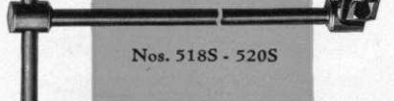
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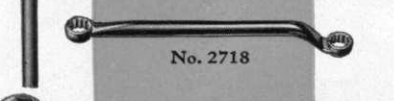
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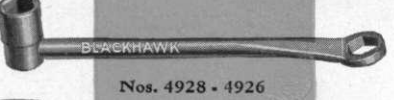
Nos. 518S - 520S



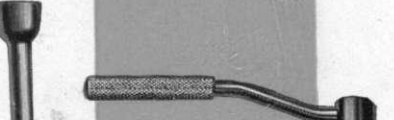
No. 2718



Nos. 4928 - 4926



No. 1316



No. 4924X

Special Wrenches

Short Speeders

Dia. handle $\frac{1}{2}$ " — Length Overall 14 $\frac{3}{4}$ ".
No. 4116 Hexagon Socket Size $\frac{1}{2}$ ".
No. 4118 Hexagon Socket Size $\frac{9}{16}$ ".
Price, each\$.65

Standard Speeders

Dia. handle $\frac{1}{2}$ " — Length Overall 19 $\frac{3}{8}$ ".

No.	Hexagon Socket Size	No.	Hexagon Socket Size
6114	$\frac{1}{16}$ "	6122	$\frac{1}{16}$ "
6116	$\frac{1}{8}$ "	6124	$\frac{3}{4}$ "
6118	$\frac{9}{16}$ "	6125	$\frac{3}{8}$ "
6119	$\frac{3}{16}$ "	6126	$\frac{1}{8}$ "
6120	$\frac{5}{8}$ "	6128	$\frac{7}{8}$ "

Price, each\$.70

Long Speeders

Dia. handle $\frac{1}{2}$ " — Length Overall 28".
No. 6316 Hexagon Socket Size $\frac{1}{2}$ ".
No. 6318 Hexagon Socket Size $\frac{9}{16}$ ".
Price, each\$1.00

Universal Joint Tees

Dia. handle $\frac{1}{2}$ " — Length 12"

No.	Hexagon Socket Size	No.	Hexagon Socket Size
516	$\frac{1}{2}$ "	520	$\frac{5}{8}$ "
518	$\frac{9}{16}$ "		

Price, each\$1.50

No.	Hexagon Socket Size	No.	Hexagon Socket Size
522	$\frac{1}{16}$ "	526	$\frac{1}{8}$ "
524	$\frac{3}{4}$ "	528	$\frac{7}{8}$ "

Price, each\$1.65

Long Tees

Dia. handle $\frac{1}{2}$ " — Length 12"

No.	Hexagon Socket Size	No.	Hexagon Socket Size
3114	$\frac{1}{16}$ "	3122	$\frac{1}{16}$ "
3116	$\frac{1}{8}$ "	3124	$\frac{3}{4}$ "
3118	$\frac{9}{16}$ "	3125	$\frac{3}{8}$ "
3119	$\frac{3}{16}$ "	3126	$\frac{1}{8}$ "
3120	$\frac{5}{8}$ "	3128	$\frac{7}{8}$ "

Price, each\$.50

Z Type

No.	Socket Size	Dia. Handle
2214	$\frac{1}{16}$ " — $\frac{1}{2}$ "	$\frac{1}{2}$ "
2216	$\frac{1}{8}$ " — $\frac{1}{16}$ "	$\frac{7}{8}$ "
2218	$\frac{9}{16}$ " — $\frac{5}{8}$ "	$\frac{9}{16}$ "
2220	$\frac{5}{8}$ " — $\frac{1}{16}$ "	$\frac{9}{16}$ "
2224	$\frac{3}{4}$ " — $\frac{7}{8}$ "	$\frac{5}{8}$ "

Price, each\$.65

L Type

Length 7" x 10"

No.	Hexagon Socket Size	No.	Hexagon Socket Size
1214	$\frac{1}{16}$ " — $\frac{1}{2}$ "	1220	$\frac{5}{8}$ " — $\frac{1}{16}$ "
1216	$\frac{1}{8}$ " — $\frac{1}{16}$ "	1224	$\frac{3}{4}$ " — $\frac{7}{8}$ "
1218	$\frac{9}{16}$ " — $\frac{5}{8}$ "		

Price, each\$.65

Single Socket Offset

No.	Hexagon Socket Size	No.	Hexagon Socket Size
1114	$\frac{1}{16}$ "	1122	$\frac{1}{16}$ "
1116	$\frac{1}{8}$ "	1124	$\frac{3}{4}$ "
1118	$\frac{9}{16}$ "	1125	$\frac{3}{8}$ "
1119	$\frac{3}{16}$ "	1126	$\frac{1}{8}$ "
1120	$\frac{5}{8}$ "	1128	$\frac{7}{8}$ "

Price, each\$.45

Spark Plug Socket Wrenches

No. 3329 — For $\frac{7}{8}$ " and 1" hex. plugs.
No. 3731 — For $\frac{1}{8}$ " and $\frac{1}{16}$ " hex. plugs.
Price, each\$.35

Battery Wrench

No. 2018 — Socket Sizes $\frac{9}{16}$ " — $\frac{5}{8}$ " for Battery Terminals.
Price, each\$.55

Double End Box Type

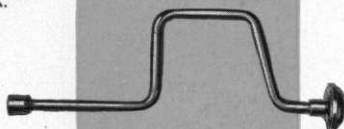
Double Hexagon from $\frac{3}{8}$ " to $\frac{7}{8}$ " inclusive. Same socket size on each end.

No.	Size	Price	No.	Size	Price
2712	$\frac{3}{8}$ "	\$1.15	2722	$\frac{1}{16}$ "	\$1.65
2714	$\frac{1}{16}$ "	1.20	2724	$\frac{3}{4}$ "	1.80
2716	$\frac{1}{8}$ "	1.30	2725	$\frac{3}{8}$ "	2.00
2718	$\frac{9}{16}$ "	1.40	2726	$\frac{1}{8}$ "	2.00
2719	$\frac{1}{16}$ "	1.50	2728	$\frac{7}{8}$ "	2.15
2720	$\frac{5}{8}$ "	1.50			

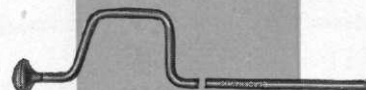
2700 Box Type Set

Six most popular box type wrenches in attractive and serviceable leatherette roll. Contains one each 2714, 2716, 2718, 2720, 2722, and 2724.
No. 2700 Set in tool roll\$8.75

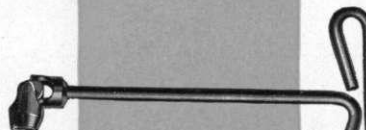
(These Prices Net to Mechanics)



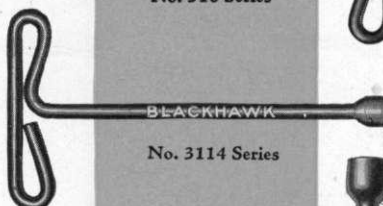
No. 4116 and 6118 Series



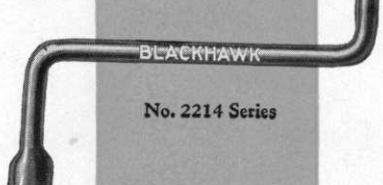
No. 6316 Series



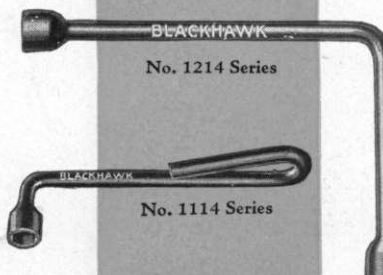
No. 516 Series



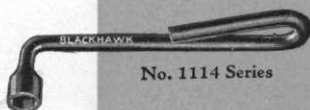
No. 3114 Series



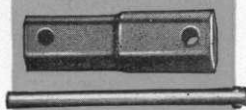
No. 2214 Series



No. 1214 Series



No. 1114 Series



3329-3731



No. 2018



2712 Series

Standard Rim Wrenches

No. 5220 Series ^{Inexpensive,}
these rim wrenches are just
the thing for average work.

No. 5220 5222 5224 5226 5228
Size $\frac{5}{8}$ " $\frac{11}{8}$ " $\frac{3}{4}$ " $\frac{13}{8}$ " $\frac{7}{8}$ "

Price, each\$.35

No. 5224B $\frac{3}{4}$ " socket, $1\frac{5}{8}$ "
deep. Extra
Deep Rim Wrench.

Price, each\$.55

No. 5020 Series ^{Same as}
No. 5120
Series less center grip.

No. 5020 5022 5024 5026 5028
Size $\frac{5}{8}$ " $\frac{11}{8}$ " $\frac{3}{4}$ " $\frac{13}{8}$ " $\frac{7}{8}$ "

Price, each\$.50

No. 5120 Series ^{The}
speed-
boy with revolving grips at
center and end. Length over-
all $16\frac{1}{4}$ "—sweep $4\frac{7}{8}$ ".

No. 5120 5122 5124 5126 5128
Size $\frac{5}{8}$ " $\frac{11}{8}$ " $\frac{3}{4}$ " $\frac{13}{8}$ " $\frac{7}{8}$ "

Price, each\$.65

Heavy Duty Rim Wrenches

No. 5320 Series ^{These}
rim tools
have extra deep socket with
heavy walls. Extra heavy $\frac{5}{8}$ "
diameter handle with $5\frac{1}{2}$ "
sweep. The knuckle-saver for
Heavy Duty Tire Service.

No.
5320 5322 5324 5326 5328 5330
Hex. Size
 $\frac{5}{8}$ " $\frac{11}{8}$ " $\frac{3}{4}$ " $\frac{13}{8}$ " $\frac{7}{8}$ " $\frac{15}{8}$ "

Price, each\$.75

Rim Wrench for Model "AA" Ford Trucks

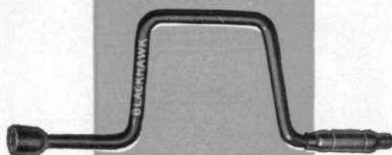
This tool is same in appearance
as 5300 Series with $\frac{3}{4}$ " dia.
handle. Has 8" sweep—socket
 $1\frac{1}{8}$ " Hex, $1\frac{5}{8}$ " deep.

No. 5336\$1.05

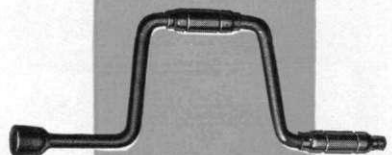
(These Prices Net to Mechanics)



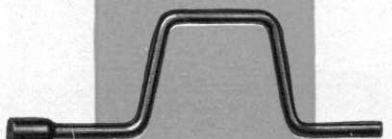
No. 5220 Series



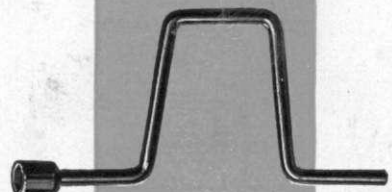
No. 5020 Series



No. 5120 Series



No. 5320 Series

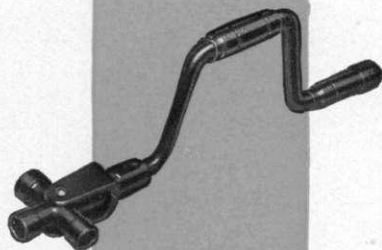


No. 5336 Series

Universal Rim Wrenches

No. 5104 This heavy duty service tool has quadruple drop-forged sockets. Sockets revolve in patented head—locked securely in place by simply snapping wrench head back on handle end. Desired socket in place instantly. Can be used for leverage as well as speed—built to stand severe strain. Socket sizes $\frac{5}{8}$ ", $\frac{11}{16}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ ", hexagon.

No. 5104\$2.85

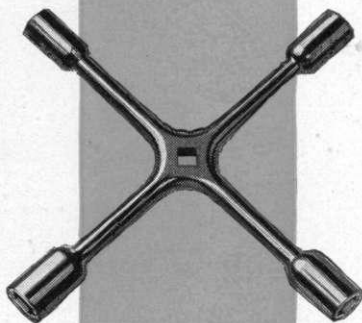


No. 5104

Universal Cross-type Wrenches

No. 5204X The master of all rim nut jobs. Equipped with extra deep sockets to get both nuts on tire carriers. Will handle any rim nut job whether wood, disc, or wire wheels. Special overall length of $14\frac{1}{2}$ " gives all the clearance needed. Diameter of handle $\frac{5}{8}$ "—Depth of sockets $1\frac{5}{8}$ ". Socket sizes $\frac{5}{8}$ ", $\frac{11}{16}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ " hexagon.

No. 5204X\$2.15



Nos. 5204
5204X

No. 5204 Same in appearance as 5204X—but has shorter arms. Overall length of $12\frac{1}{2}$ ".

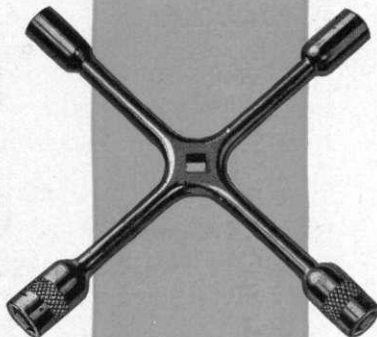
No. 5204\$2.00

Universal Ford Rim Wrench

No. 5404X Takes care of rim nut jobs on every Ford put out — Models "T", "A", and "AA" trucks. Equipped with four Hexagon sockets $\frac{5}{8}$ ", $\frac{11}{16}$ ", $\frac{13}{16}$ ", $1\frac{1}{8}$ ".

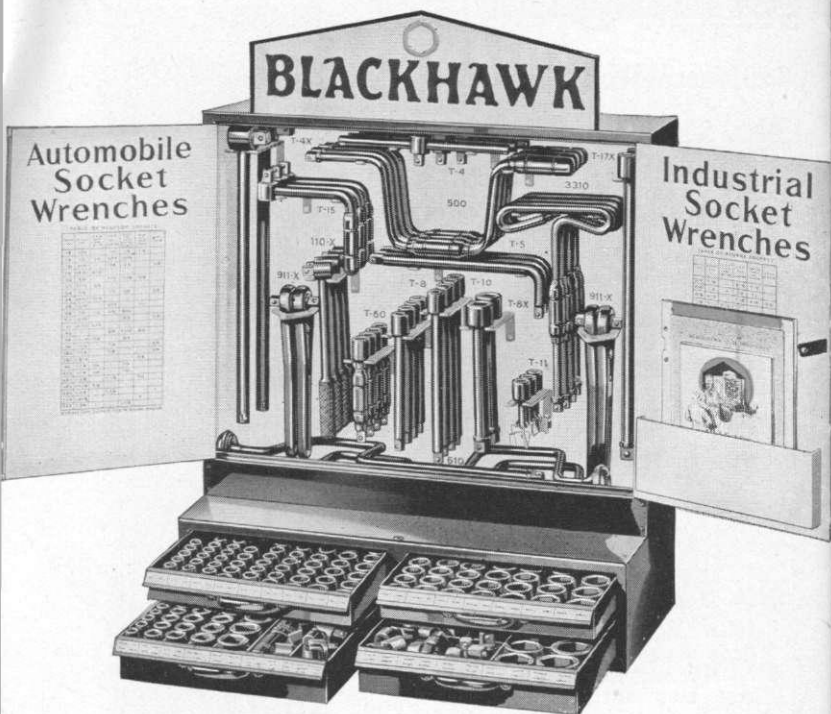
The $\frac{5}{8}$ " socket for old model "T". The $\frac{11}{16}$ " socket for late model "T" and early model "A". The $\frac{13}{16}$ " socket for late model "A". The $1\frac{1}{8}$ " socket for model "AA" truck wheels. Dia. of handle $\frac{5}{8}$ " on three arms— $\frac{3}{4}$ " on arm with $1\frac{1}{8}$ " socket. Overall length $14\frac{1}{2}$ ".

No. 5404X\$2.15



No. 5404X

(These Prices Net to Mechanics)



Buy Where You See This Cabinet

The Cabinet pictured here invites you to use its service constantly.

It will be found in the best accessory, hardware and parts stores or in the larger repair shops and garages.

It stocks the most popular tools in the Quick Detachable line.

If you require anything which is not stocked in the Cabinet, the dealer will be glad to secure same from one of our distributing wholesalers.

A handy manual "Set for Every Car and Job"—which is a part of Blackhawk Cabinet Service, gives up-to-date data on the proper handles or sockets for every nut on popular cars and trucks.

Dealers Blackhawk Cabinets come in three sizes:

No. 10 with 234 pieces. List Price \$185.85.

No. 10A with 113 pieces. List Price \$102.70.

No. 20 with 94 pieces. List Price \$67.45.

Secure these from your Blackhawk jobber.

Blackhawk Handy Guide For Mechanics

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Blackhawk Socket Wrenches

Save Your Knuckles,
Improve Your Work,
Speed Up The Job,
Increase Your Income.

*Blackhawk-Armstrong Open
End Wrenches*

Are Longest and Strongest,
Lighter and Brighter,
Get In Tight Places,
Fix Up Loose Places.

Buy These Wrenches

From Your Friends—
The Established Dealers.

These Dealers Will

Serve You Promptly,
Make Good Any Trouble,
Save You Money.

Can You Ask More?



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